

Submarine cable system of APCN 2 Extension in China

Submarine optical fiber cable connecting and landing in shallow sea

Introduction

The APCN 2 cable system is a 19,000 km-long submarine optical network, connected China, Hong Kong, Japan, Korea, Malaysia, Philippines, Singapore, and Taiwan with an enormous bandwidth of 2.56 terabits per second. It also provides seamless interconnection with other major trans-oceanic cable networks linking the USA, Europe, Australia, and other parts of Asia.

ZTT has been invited to support the extension part of the APCN-2 of China's section, offering submarine cable design, manufacturing and delivering; cable route planning and installation supervision.



Project information:

Project	APCN 2 Extension - Chongming to Shanghai
Implement date	November 2001
Landing location	Onshore station, Chongming ; CNC Central office, Shanghai
Total undersea length	22km
Sea condition	Shallow water
Project Owner	China Netcom (CNC)
Cable supplier	ZTT Cable
Cable Installation	Shanghai Offshore Salvage Bureau
Construction supervision	ZTT Cable

Features

● Mechanical protection

To avoid submarine cable damage from anchor, ship net or rock, the cable using double layer of high strength steel wire as the mechanical protection.

Water blocking

Laser-welded stainless steel tube perfectly isolated fiber form outer environment. Bitumen flooded within the outer sheath provides an extra protection from moisture and water.

● Excess fiber length

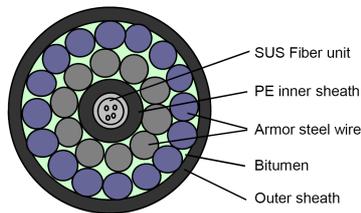
Excess fiber length can prevent the fiber damage during laying and handling. It also maintains the optical performance in case of any unpredicted movement of the cable.

● Total solution

From route planning, landing site investigation, cable design, supply and deliver, installation work supervision. ZTT offer the most comprehensive solutions to customer.

Technical parameters:

Cable Structure



Cable characteristics

Cable type	Double armor central tube(DA2C)
Fiber count	48c
Outer diameter	39mm
Weight	4.6 kg/m
Ultimate tensile strength	630kN
Crush resistance (IEC-794-1-E3)	40kN
Impact resistance (IEC-794-1-E4)	400Nm